

09931372_CLSTITLES

Titles of Most Frequently Occurring Classifications of Patents Returned

From A Search of 09931372 on October 30, 2002

- 17 209/273 (4 OR, 13 XR)
 Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS
- 209/233 SIFTING
 209/268 .With liquid treatment
 209/273 ..Stationary sifters
- 10 210/415 (2 OR, 8 XR)
 Class 210 : LIQUID PURIFICATION OR SEPARATION
- 210/348 FILTER
 210/407 .With residue removing means or agitation of liquid
 210/413 ..Fixed filter medium and movable stirrer or cleaner
 210/415 ...Nontranslatory rotary
- 7 209/17 (4 OR, 3 XR)
 Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS
- 209/12.1 PLURAL, DIVERSE SEPARATING OPERATIONS
 209/17 .Aqueous suspension and sifting
- 7 209/306 (0 OR, 7 XR)
 Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS
- 209/233 SIFTING
 209/274 .Concave and convex sifters
 209/281 ..Stationary
 209/305 ...Stationary
 209/306With agitators
- 6 241/189.1 (1 OR, 5 XR)
 Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
- 241/189.1 .Rotary striking member with circumferential or tangential flow
- 6 241/73 (5 OR, 1 XR)
 Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
- 241/68 .With separation or classification of material

09931372_CLSTITLES

241/69	..Comminuted material discharge permitting screen
241/73	...Arcuate screen concentric with rotary comminuting member
6 241/74	(5 OR, 1 XR)
Class 241 :	SOLID MATERIAL COMMINUTION OR DISINTEGRATION
241/68	.With separation or classification of material
241/69	..Comminuted material discharge permitting screen
241/74	...Annular screen above or surrounding comminuting zone
5 34/58	(2 OR, 3 XR)
Class 034 :	DRYING AND GAS OR VAPOR CONTACT WITH SOLIDS
34/523	APPARATUS
34/58	.With apparatus using centrifugal force
5 34/59	(3 OR, 2 XR)
Class 034 :	DRYING AND GAS OR VAPOR CONTACT WITH SOLIDS
34/523	APPARATUS
34/58	.With apparatus using centrifugal force
34/59	..Rotary scattering member
5 209/270	(3 OR, 2 XR)
Class 209 :	CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS
209/233	SIFTING
209/268	.With liquid treatment
209/269	..Reciprocating sifters
209/270	...Drum
5 210/456	(1 OR, 4 XR)
Class 210 :	LIQUID PURIFICATION OR SEPARATION
210/348	FILTER
210/456	.Prefilt flow distributor or diverter
4 34/147	(0 OR, 4 XR)
Class 034 :	DRYING AND GAS OR VAPOR CONTACT WITH SOLIDS
34/523	APPARATUS
34/147	.Spiral treated material path type
4 34/166	(0 OR, 4 XR)

09931372 CLSTITLES

Class 034 : DRYING AND GAS OR VAPOR CONTACT WITH SOLIDS

34/523 APPARATUS
 34/165 .Gravity flow type
 34/166 ..Trough or tube, with axially rotary conveyor
 or agitator

4 34/173 (0 OR, 4 XR)

Class 034 : DRYING AND GAS OR VAPOR CONTACT WITH SOLIDS

34/523 APPARATUS
 34/165 .Gravity flow type
 34/168 ..With gas or vapor flow for contact with
 treated material
 34/171 ...Shelf-to-shelf or zigzag treated material
 flow
 34/173Rotary stirrer or shelf

4 34/182 (1 OR, 3 XR)

Class 034 : DRYING AND GAS OR VAPOR CONTACT WITH SOLIDS

34/523 APPARATUS
 34/179 .Stationary receptacle or tube with agitator o
 r
 conveyor
 34/181 ..With gas or vapor flow for contact with
 treated material
 34/182 ...Axial treated material feed type

4 34/183 (0 OR, 4 XR)

Class 034 : DRYING AND GAS OR VAPOR CONTACT WITH SOLIDS

34/523 APPARATUS
 34/179 .Stationary receptacle or tube with agitator o
 r
 conveyor
 34/183 ..Axial treated material feed type

4 162/55 (1 OR, 3 XR)

Class 162 : PAPER MAKING AND FIBER LIBERATION
 162/1 PROCESSES OF CHEMICAL LIBERATION, RECOVERY OR
 PURIFICATION OF NATURAL CELLULOSE OR FIBRO

US MATERIAL

162/55 .With classifying, separating or screening of
 pulp (solids from solids)

4 209/250 (0 OR, 4 XR)

Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS

09931372_CLSTITLES

209/233 SIFTING
 209/243 .Feeding
 209/247 ..Conveyors
 209/250 ...Fluid

4 210/232 (2 OR, 2 XR)
 Class 210 : LIQUID PURIFICATION OR SEPARATION
 210/232 WITH REPAIR OR ASSEMBLING MEANS

4 210/414 (0 OR, 4 XR)
 Class 210 : LIQUID PURIFICATION OR SEPARATION
 210/348 FILTER
 210/407 .With residue removing means or agitation of
 liquid
 210/413 ..Fixed filter medium and movable stirrer or
 cleaner
 210/414 ...With plural outlets from filter casing

4 280/741 (4 OR, 0 XR)
 Class 280 : LAND VEHICLES
 280/29 WHEELED
 280/727 .Attachment
 280/728.1 ..Inflatable passenger restraint or confinemen
 t
 (e.g., air bag) or attachment
 280/741 ...Inflation fluid source

3 55/457 (0 OR, 3 XR)
 Class 055 : GAS SEPARATION
 55/434 DEFLECTOR
 55/447 .Fixed gas whirler or rotator means
 55/456 ..Helical vane or baffle within flow conduit
 55/457 ...Between gas flow path wall and central core

3 209/240 (2 OR, 1 XR)
 Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS
 209/233 SIFTING
 209/240 .Feeding and discharging

3 209/380 (0 OR, 3 XR)
 Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS
 209/233 SIFTING
 209/363 .Elements
 209/379 ..Clearers

09931372_CLSTITLES

209/380

...Fluid

3 210/388 (0 OR, 3 XR)

Class 210 : LIQUID PURIFICATION OR SEPARATION

210/348 FILTER

210/359 .Movable medium

210/388 ..Vibrating or longitudinally reciprocating

3 210/450 (0 OR, 3 XR)

Class 210 : LIQUID PURIFICATION OR SEPARATION

210/348 FILTER

210/435 .Within flow line or flow line connected close casing

210/450 ..Gasket within casing or spaced removable end members

3 210/454 (0 OR, 3 XR)

Class 210 : LIQUID PURIFICATION OR SEPARATION

210/348 FILTER

210/435 ..Within flow line or flow line connected close casing

210/454 ..Filter element attached to closure

3 241/172 (0 OR, 3 XR)

Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION

241/170 .Loose grinding body comminutor (e.g., ball or rod mills)

241/172 ..With independent means moving or guiding the material and/or grinding bodies in receptac

le

3 241/46.17 (1 OR, 2 XR)

Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION

241/38 .Including means applying fluid to material

241/46.01 ..Liquid submerged comminuting zone

241/46.17 ...By rotating impeller-type agitating means

3 241/89.2 (0 OR, 3 XR)

Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION

241/83 .Comminuting surface provided with openings to permit discharge of material

241/84 ..Cooperates with moving comminuting surface o

r

member

241/86 ...Cooperates with rotary comminuting member

09931372_CLSTITLES

241/89.2

....Removable or interchangeable screen or
screen portion

2 34/168 (2 OR, 0 XR)
Class 034 : DRYING AND GAS OR VAPOR CONTACT WITH SOLIDS

34/523 APPARATUS
34/165 .Gravity flow type
34/168 ..With gas or vapor flow for contact with
treated material

2 34/175 (0 OR, 2 XR)
Class 034 : DRYING AND GAS OR VAPOR CONTACT WITH SOLIDS

34/523 APPARATUS
34/165 .Gravity flow type
34/175 ..With venting means or wall

2 55/337 (0 OR, 2 XR)
Class 055 : GAS SEPARATION
55/315 PLURAL SERIAL BASICALLY DIVERSE SEPARATING
MEDIA
55/318 .Plural stages in unitary casing
55/320 ..Deflector and fibrous, filamentary,
particulate solids, or cohesive sheet fil
ter type
55/332 ...Cohesive sheet-like filter
55/337Cyclone or centrifugal whirl type deflecto
r

2 62/470 (2 OR, 0 XR)
Class 062 : REFRIGERATION
62/467 REFRIGERATION PRODUCER
62/468 .With lubricant handling means
62/470 ..Lubricant separator

2 62/84 (0 OR, 2 XR)
Class 062 : REFRIGERATION
62/56 PROCESSES
62/84 .Lubricant handling

2 96/189 (1 OR, 1 XR)
Class 096 : GAS SEPARATION: APPARATUS
96/155 DEGASIFYING MEANS FOR LIQUID
96/188 .Including means to remove mist entrained in
gas
96/189 ..Baffle, filter, or screen

09931372_CLSTITLES

- 2 102/531 (0 OR, 2 XR)
Class 102 : AMMUNITION AND EXPLOSIVES
102/530 JACKETED OR CARTRIDGE GAS GENERATOR
102/531 .For gas-powered tools or means
- 2 175/66 (0 OR, 2 XR)
Class 175 : BORING OR PENETRATING THE EARTH
175/57 PROCESSES
175/65 .Boring with specific fluid
175/66 ..Treating spent or used fluid above ground
- 2 209/269 (0 OR, 2 XR)
Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS

209/233 SIFTING
209/268 .With liquid treatment
209/269 ..Reciprocating sifters
- 2 209/281 (0 OR, 2 XR)
Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS

209/233 SIFTING
209/274 .Concave and convex sifters
209/281 ..Stationary
- 2 209/3 (0 OR, 2 XR)
Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS

209/3 PRECEDENT PREPARATION OF ITEMS OR MATERIALS TO
FACILITATE SEPARATION
- 2 209/301 (1 OR, 1 XR)
Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS

209/233 SIFTING
209/274 .Concave and convex sifters
209/281 ..Stationary
209/301 ...Reciprocating and rotating
- 2 209/360 (0 OR, 2 XR)
Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS

209/233 SIFTING
209/307 .Endless belt sifters
209/359 ..Vertical
209/360 ...Reciprocating

09931372_CLSTITLES

- 2 209/44 (1 OR, 1 XR)
Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS

209/12.1 PLURAL, DIVERSE SEPARATING OPERATIONS
209/44 .Sifting and stratifying
- 2 209/498 (0 OR, 2 XR)
Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS

209/422 STRATIFIERS
209/484 .Elements
209/497 ..Feeding
209/498 ...Distributing
- 2 209/714 (1 OR, 1 XR)
Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS

209/132 FLUID SUSPENSION
209/133 .Gaseous
209/142 ..Grading deposition
209/143 ...With deflection
209/713Mechanically induced swirling
209/714Eduction rotor
- 2 210/304 (0 OR, 2 XR)
Class 210 : LIQUID PURIFICATION OR SEPARATION
210/294 DIVERSE DISTINCT SEPARATORS
210/295 .Including a filter
210/299 ..Including constituent trapping feature
210/304 ...Tangential flow, spiral or convolute baffle
- 2 210/380.1 (0 OR, 2 XR)
Class 210 : LIQUID PURIFICATION OR SEPARATION
210/348 FILTER
210/359 .Movable medium
210/360.1 ..Centrifugal extractor
210/380.1 ...Rotating element construction
- 2 210/409 (0 OR, 2 XR)
Class 210 : LIQUID PURIFICATION OR SEPARATION
210/348 FILTER
210/407 .With residue removing means or agitation of
liquid
210/409 ..Fluid cleaning
- 2 210/413 (1 OR, 1 XR)
Class 210 : LIQUID PURIFICATION OR SEPARATION

09931372_CLSTITLES

- 210/348 FILTER
- 210/407 .With residue removing means or agitation of liquid
- 210/413 ..Fixed filter medium and movable stirrer or cleaner

- 2 210/433.1 (0 OR, 2 XR)
 - Class 210 : LIQUID PURIFICATION OR SEPARATION
 - 210/348 FILTER
 - 210/433.1 .Divided filtered, and unfiltered liquid passages

- 2 210/497.01 (0 OR, 2 XR)
 - Class 210 : LIQUID PURIFICATION OR SEPARATION
 - 210/348 FILTER
 - 210/483 .Supported, shaped or superimposed formed mediums
 - 210/497.01 ..Cylindrical, conical, or trough shape

- 2 210/512.1 (0 OR, 2 XR)
 - Class 210 : LIQUID PURIFICATION OR SEPARATION
 - 210/512.1 TANGENTIAL FLOW OR CENTRIFUGAL FLUID ACTION

- 2 210/512.3 (0 OR, 2 XR)
 - Class 210 : LIQUID PURIFICATION OR SEPARATION
 - 210/512.1 TANGENTIAL FLOW OR CENTRIFUGAL FLUID ACTION
 - 210/512.3 .With movable means affecting flow

- 2 210/787 (1 OR, 1 XR)
 - Class 210 : LIQUID PURIFICATION OR SEPARATION
 - 210/600 PROCESSES
 - 210/767 .Separating
 - 210/787 ..Cyclonic, or centrifugal (e.g., whirling or helical motion or by vortex, etc.)

- 2 241/188.1 (0 OR, 2 XR)
 - Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
 - 241/188.1 .Rotary striking member with axial or radial flow of material

- 2 241/19 (0 OR, 2 XR)
 - Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
 - 241/15 .With application of fluid or lubricant material
 - 241/18 ..Gas or vapor
 - 241/19 ...To classify or separate material

09931372_CLSTITLES

- 2 241/191 (0 OR, 2 XR)
 Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
 241/191 .Rotary striking member, rotor structure
- 2 241/236 (0 OR, 2 XR)
 Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
 241/198.1 .Cooperating comminuting surfaces (e.g., jaw
 crusher)
 241/220 ..Rotary surface (or surfaces)
 241/221 ...Circumferential or tangential flow of
 material (e.g., roll mills or roll and c
 oncave mills)
 241/227Both cooperating surfaces rotate (e.g.,
 roll mills)
 241/235Cooperating non-smooth surface
 characteristic
 241/236Intermeshing
- 2 241/242 (2 OR, 0 XR)
 Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
 241/198.1 .Cooperating comminuting surfaces (e.g., jaw
 crusher)
 241/220 ..Rotary surface (or surfaces)
 241/221 ...Circumferential or tangential flow of
 material (e.g., roll mills or roll and con
 cave mills)
 241/242Cooperating non-smooth surface
 characteristics
- 2 241/259.1 (1 OR, 1 XR)
 Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
 241/198.1 .Cooperating comminuting surfaces (e.g., jaw
 crusher)
 241/220 ..Rotary surface (or surfaces)
 241/244 ...Axial or radial flow of material (e.g., dis
 c
 mill, or cone and shell mill)
 241/259.1With means vary space between surfaces
- 2 241/294 (0 OR, 2 XR)
 Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
 241/291 .Comminuting elements

09931372_CLSTITLES

- 241/293 ..Cylindrical or frusto-conical (i.e.,
peripheral comminuting face)
- 241/294 ...Sectional or separable surface element
- 2 241/30 (1 OR, 1 XR)
Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
- 241/30 .Miscellaneous
- 2 241/46.02 (2 OR, 0 XR)
Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
- 241/38 .Including means applying fluid to material
- 241/46.01 ..Liquid submerged comminuting zone
- 241/46.02 ...With material feed means
- 2 241/7 (1 OR, 1 XR)
Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
- 241/6 .Cereal and other seeds or seed parts
- 241/7 ..With operation to detach or loosen adhering
hull portion
- 2 241/81 (0 OR, 2 XR)
Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
- 241/68 .With separation or classification of material
- 241/81 ..Separator in feed to comminuting zone
- 2 241/86.1 (0 OR, 2 XR)
Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
- 241/83 .Comminuting surface provided with openings to
permit discharge of material
- 241/84 ..Cooperates with moving comminuting surface o
r
member
- 241/86 ...Cooperates with rotary comminuting member
- 241/86.1Material thrown against perforated surface
by centrifugal force
- 2 241/88 (0 OR, 2 XR)
Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
- 241/83 .Comminuting surface provided with openings to
permit discharge of material
- 241/84 ..Cooperates with moving comminuting surface o

09931372_CLSTITLES

r

member

241/86 ...Cooperates with rotary comminuting member
241/88Provided with special comminuting surfaces
or characteristics

2 280/736 (0 OR, 2 XR)

Class 280 : LAND VEHICLES

280/29 WHEELED

280/727 .Attachment

280/728.1 ..Inflatable passenger restraint or confinemen

t

(e.g., air bag) or attachment

280/736 ...With source of inflation fluid and flow
control means thereof

09931372_CLS

Most Frequently Occurring Classifications of Patents Returned
From A Search of 09931372 on October 30, 2002

Original Classifications

5	241/73
5	241/74
4	209/17
4	209/273
4	280/741
3	34/59
3	209/270
2	34/168
2	34/58
2	62/470
2	209/240
2	210/232
2	210/415
2	241/242
2	241/46.02

Cross-Reference Classifications

13	209/273
8	210/415
7	209/306
5	241/189.1
4	34/147
4	34/166
4	34/173
4	34/183
4	209/250
4	210/414
4	210/456
3	34/182
3	34/58
3	55/457
3	162/55
3	209/17
3	209/380
3	210/388
3	210/450
3	210/454
3	241/172
3	241/89.2
2	34/175
2	34/59
2	55/337
2	62/84

09931372_CLS

2 102/531
2 175/66
2 209/269
2 209/270
2 209/281
2 209/3
2 209/360
2 209/498
2 210/232
2 210/304
2 210/380.1
2 210/409
2 210/433.1
2 210/497.01
2 210/512.1
2 210/512.3
2 241/188.1
2 241/19
2 241/191
2 241/236
2 241/294
2 241/46.17
2 241/81
2 241/86.1
2 241/88
2 280/736

Combined Classifications

17 209/273
10 210/415
7 209/17
7 209/306
6 241/189.1
6 241/73
6 241/74
5 34/58
5 34/59
5 209/270
5 210/456
4 34/147
4 34/166
4 34/173
4 34/182
4 34/183
4 162/55
4 209/250
4 210/232
4 210/414

09931372_CLS

4 280/741
3 55/457
3 209/240
3 209/380
3 210/388
3 210/450
3 210/454
3 241/172
3 241/46.17
3 241/89.2
2 34/168
2 34/175
2 55/337
2 62/470
2 62/84
2 96/189
2 102/531
2 175/66
2 209/269
2 209/281
2 209/3
2 209/301
2 209/360
2 209/44
2 209/498
2 209/714
2 210/304
2 210/380.1
2 210/409
2 210/413
2 210/433.1
2 210/497.01
2 210/512.1
2 210/512.3
2 210/787
2 241/188.1
2 241/19
2 241/191
2 241/236
2 241/242
2 241/259.1
2 241/294
2 241/30
2 241/46.02
2 241/7
2 241/81
2 241/86.1
2 241/88

09931372_CLS

2 280/736

09931372_LIST

PLUS Search Results
for S/N 09/931,372
Searched October 30, 2002

5503338
5938131
4320089
4462900
6039513
5265347
5611150
6138375
6237244
6438864
6467188
5570849
5301439
5925249
5188298
4245999
4574046
4898666
5059324
5186332
5680811
5899338
5511731
5505388
4364756
4970004
5176826
5407565
5678767
6176443
4117984
5741340
4998678
5301812
5560553
4164467
4460393
4857175
5271245
5404730
4821620
5231805
5176261
4899662

09931372_LIST

5497702
4507080
4476019
4565015
5638606
6438866
4076508
4367078
4597871
6123359
3920624
5224734
5527067
5624134
4441658
5271503
4267035
4302327
4328096
4436100
4458763
4900430
4955482
5195685
5224603
5255788
5307939
5316685
5358637
5458246
5497886
5601690
5651305
5655720
5692688
5713526
5820039
6325311
4492178
4937491
5322722
6192597
6243184
6461478
5297746
4265738
5971307
6102310

09931372_LIST

6135373
3680797
3653600
4247392
4557826
RE33085
4955549
5240190